

*Influence of Temperature on the Separate Sexes of Flowers.*—Mr. MEEHAN referred to his former observation, recorded in the Proceedings, that the male flowers in *Amentaceæ*, and other dioecious plants would grow, become perfectly developed, and mature the pollen under a temperature wholly insufficient to excite the growth of the female flower, which would remain undeveloped until a warmer temperature ensued. He had shown that the infertility of hickories, oaks, walnuts, hazelnuts, and other plants, a complaint common among orchardists in our country, arose from this fact, there being very little or often no pollen to fertilize the flowers in seasons when a few moderately warm days in winter would bring the aments to perfection a month or even months before the female flowers grew. This season we had no warm winter days, and at this time, middle of April, the aments in the hazelnuts and the female flowers were maturing together.

Mr. Meehan added that when he first reported these observations to the Academy he believed them wholly original, but he had since noted that similar observations had been communicated to the Horticultural Society of London, on the 18th of February, 1823, by Rev. George Swayne. "I entertain," says he, "a strong suspicion that the very frequent failures of the filbert crop (Mr. Williamson tells us that they totally fail three years out of five) are in great measure occasioned by a deficiency either in number or in power of the male blossom." He remedied this by experiment, by getting aments from other trees and hanging them in the trees that had lost them. This gentleman, however, did not apparently perceive the underlying principle that it took less heat to perfect the male flowers than the female flowers of the same species. It was quite possible this generalization might be carried out of the region of amentaceous or allied plants, and carried to a wide range of vegetable species, or even into zoology.

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APRIL 28.

Mr. EDW. POTTS in the chair.

Fourteen persons present.

A paper entitled "On the genus *Aphredoderus*," by Willis S. Blatchley, was presented for publication.

Mr. Philip Laurent and the Rev. J. R. Danforth, D. D., were elected members.

*Elasticity in the Fruit of Cactaceæ.*—At the last meeting of the Botanical Section, Mr. THOMAS MEEHAN exhibited fruit of *Mamillaria Heyderi*, and remarked on the elastic characters of this and other species. This *Mamillaria*, under culture, flowers in April